

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

Series and Series Number :

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August 4, 1993)
MATERIALS RELEASE NO. 1229b

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

ISSUE DATE: October 7, 1996

REVIEW DATE: October 7, 1999

SUBJECT: 1. Product

Bitec Modified Bitumen Roofing Membrane Systems

2. Name and Address
of Manufacturer

Bitec, Inc.
P.O. Box 497
No. 2 Industrial Park Drive
Morrilton, AK 72110

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Roof covering for nominally flat and pitched roofs.

DESCRIPTION REQUIREMENTS:

Bitec roofing membranes shall be in accordance with Tables 1 & 2.

1. Bitec roofing membranes, APS-4T, APM-4.5T, and APM-4T are composed of atactic polypropylene blended with bitumen, and reinforced with polyester fabric. The roofing membranes, APM-4T and 4.5T are surfaced with roofing granules and installed by heat welding.

2. Bitec SPM-4.5T, SPM-3.5H, and SPS-3H are styrene-butadiene-styrene modified bitumen roofing membranes and reinforced with polyester fabric. Membrane SPS-3H is smooth surfaced. SPM-4.5T is installed by heat welding. SPM-3.5H and SPS-3H are installed in hot roofing asphalt.

Bitec SFM-3.5H is a styrene-butadiene-styrene modified bitumen roofing membrane reinforced with a high strength fiberglass mat. SFM-3.5H is installed in hot roofing asphalt or with a Bitec elastomeric cold process adhesive.

Bitec SFM-3.5H-FR is a styrene-butadiene-styrene modified bitumen roofing membrane reinforced with a high strength fiberglass mat. The membrane is surfaced with roofing granules. The membrane requires no additional surfacing to achieve UL Class "A" fire rating over combustible or non-combustible roof decks. SFM-3.5H-FR is installed in hot roofing asphalt.

3. Bitec Compabase FS-2H, PS-2H and FS-25 modified bitumen base sheets are used with hot asphalt applications or are mechanically attached. Bitec Compabase FAV-2T base sheet is perforated and is loose laid to the roof deck. The roofing membranes are laid on the FAV-2T side lap and heat fused. The area of adhesion is approximately 10%. All of the Compabase sheets are modified bitumens reinforced with fiberglass, except PS-2H which is reinforced with polyester fabric.

Bitec Compabase FA-2T base sheet is for heat fused application or a mechanically attached membrane.

Bitec Compabase FSV-2H base sheet is perforated and loose laid to the roof deck. The roofing membranes are laid on the FSV-2H side lap and are hot applied. The area of adhesion is approximately 10%.

4. Bitec Compaflash BFS-2H is a SBS (Styrene-Butadiene Styrene) base flashing sheet reinforced with a spun-bonded polyester fabric. All base flashings shall be coated with approved BITEC roof coating.
5. Bitec Beta Base I and Beta II are oxidized bitumen base sheets reinforced with fiberglass mats. They are designed for use where UL listed Type G2 base sheet is required.

Styrene-Butadine-Styrene Modified Bitumen Roofing Table 2

	Polyester Fabric Reinforced	High Strength Fiberglass Mat Reinforced	Smooth Surface	Roofing Granule Surfaced	Installed by Heat Welding	Install with Hot Roofing Asphalt	Used as Base Sheet Plies in Roofing Systems	Used as Base Sheet	Perforated Base Sheet Used for Venting Roof Membrane Systems	Used as Base Sheet Ply in BUR Systems	UL Class A Fire Rating over Combustible or Non-Combustible Tool Decks
	X			X	X						X
	X			X		X					X
	X		X			X					X
		X		X		X					X
		X		X		X					X
		X	X			X	X	X			X
		X	X			X	X	X			X
		X	X			X	X	X	X		
	X		X			X	X	X			X
	X		X			X				X	

Table 1. Atactic Polypropylene Modified Bitumen Roofing Membranes

	Polyester Fabric Reinforcement	Install by Heat Welding	Roofing granule surface	High strength fiber mat reinforcing	Use as base sheet plies in roof systems	Smooth Surfaced	Perforated base sheet for venting Roof membrane system
APS 4T	X	X				X	
APM 4.5T	X	X	X				
APM 4T	X	X	X				
FA 2T		X		X	X	X	
FAV 2T		X		X	X	X	X

MATERIALS:

All elements of the Bitec membrane roofing systems shall be products of Bitec, Inc.. Materials used in conjunction with the systems which are not products of Bitec shall be approved, prior to installation, in writing by Bitec and the building owner.

INSTALLATION:

1. General

The Bitec roofing systems shall be installed by roofing contractors approved or licensed by Bitec, Inc. and installation shall be in accordance with Bitec Roofing Materials Specifications.

2. Roofing System

Mechanically fastened roofing systems shall be designed to resist wind uplift forces as determined in the Wind Design Guide for Mechanically Fastened Single-Ply Roofing Systems published by the Single Ply Roofing Institute (SPRI).

Ballasted roofing systems shall be designed in accordance with the Wind Design Guide for Ballasted Single-Ply Roofing Systems published by SPRI.

3. Substrate preparation

Preparation of the substrate shall comply with Bitec installation instructions. Design of the roof deck is the responsibility of owner or his architect/engineer.

4. Insulation

Insulation or underlayment shall be approved in writing by Bitec, Inc. as to thickness and type. Insulation is to be installed in accordance with insulation manufacturer's recommendations and Bitec Roofing Materials Specification and Details.

5. Membrane Installation

Membrane installation, including placing, bond lap splicing, perimeters attachment, flashing, construction closure, walkways and other work to provide watertight roofing systems shall comply with appropriate Bitec Roofing Material Specifications.

INSPECTION:

A designated representative of Bitec, Inc. shall make inspections of the installation at the following intervals: (1) prior to delivery of materials--to accept or reject the roof deck to which the roofing system is to be applied; (2) during the installation--to inspect and approve the installation techniques and methods; and (3) upon completion--to give final approval to the installation.

WARRANTY:

A ten-year warranty shall be given to the owner by Bitec, Inc. to read as follows:

Bitec, Inc. hereby warrants to the owner of its roofing system, installed by an applicator approved by Bitec, that the system will remain in a watertight condition and will retain at least 80% of its specified aged thermal resistance value, if applicable, for a period of ten years from the date of installation.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate user fees shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of this MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.

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